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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,527	07/08/2003	Rainer Graumann	P03,0215	8192
26574 7590 02/21/2007 SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			EXAMINER KISH, JAMES M	
			ART UNIT	PAPER NUMBER
			3737	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/615,527

Applicant(s)

GRAUMANN ET AL.

Examiner

James Kish

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed November 13, 2006 have been fully considered but they are not persuasive.

1. Applicant states that the Examiner failed to present specific citation "regarding a medical instrument adapted for introduction into the body of a subject that is adapted to interact with a bone fragment in the body of the subject to move the bone fragment, nor did the Examiner identify any disclosure in the reference regarding an image computer connected to a data processor for segmenting the visualization of the bone fragment in a displayed image (pages 1-2 of Applicant's response)." Examiner's failure to specifically point to these features of the disclosure do not take away from the fact that they are present, as will be described in the following argument.

2. Column 2, lines 46-51 states, "It is a further object of the this invention to provide a system and method for medical and surgical procedures which allows repositioning of body elements during the procedure..." Column 7, lines 8-17 states, "In addition, it is contemplated that an instrument which would be used during the procedure may be modified by the addition of emitters. This modified instrument when moved into the area of the skeletal elements would be activated so that its emitters would communicate with the reference array thereby permitting the localizer to determine the instrument's position."

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3. Column 4, line 56 through column 5, line 41 discusses a discrimination process. "Preferably, after imaging, a processor applies a discrimination process to the pre-procedural image data set so that only [specific] body elements remain in the memory."

For the reason stated above, Examiner respectfully disagrees with the Applicant's argument that Foley does not disclose all of the elements of claims 1 and 8. Therefore, the rejection as applied in the Office Action dated August 9, 2006 still stands and is provided below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6-13, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Foley et al. (US Patent No. 6,167,145). Foley discloses a bone navigation system and methods for such a system. The system includes a processor for modifying an image data set during the procedure. The system accounts for movement that can occur between portions of the skeleton that are not rigidly joined, such as fragments of a broken bone (column 1, line 55 through column 2, line 2). Registration is provided by several methods, including physical contact by a registration probe (column 6, line 48 through column 7, line 16), fixation of the patient within a frame

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(column 7, lines 16-34), as well as image registration (column 8, line 59 through column 9, line 32). See column 9, line 63 through column 10, line 14 for discussion of medical instruments. The images are imaged using any of several different modalities, including, but not limited to, CT. Also see column 2, line 54 through column 3, line 24.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foley et al. in view of any of Kienzle, III et al. (US Patent No. 6,285,902), Suhm (US Patent No. 6,491,429) or Simon et al. (US Patent No. 6,470,207). Foley discloses a bone navigation system and methods for such a system. However, he does not state that a movable C-arm is used.

Kienzle teaches the use of CT imaging using a C-arm, at any point during a procedure, to image unexposed bone (column 1, lines 28-32). As discussed in column 8, lines 14-39, the C-arm is able to be rotated or inclined as desired.

Suhm states that a C-arm X-ray device is used routinely today for the intraoperative control of length and axial and rotational alignment of bones and bone fragments (column 1, lines 6-9).

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Simon teaches allowing a physician to rotate a C-arm fluoroscopic imager to acquire images along a patient's long axis (column 16, lines 26-38). Column 13 discusses aligning bone fragments.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a movable C-arm, as taught by any of Kienzle, Suhm or Simon, as the imaging device for the system disclosed by Foley because it is well-known in the art to use such a device for imaging bone fragments during a procedure, as stated by said references.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

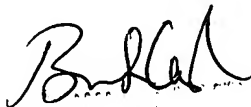
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Kish whose telephone number is 571-272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK



Handwritten signature of Brian Casler, supervisor, with a faint circular stamp below it.